

# BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number  
**WO 2005/036491 A3**

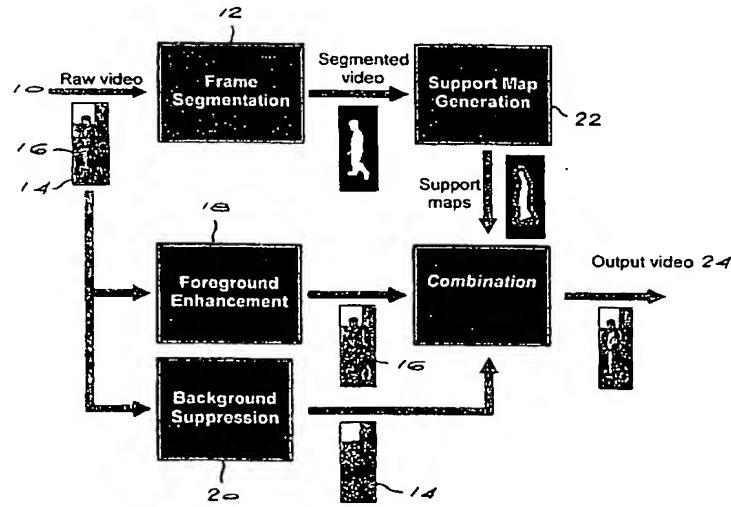
- (51) International Patent Classification<sup>7</sup>: G08B 13/196, 13/194
- (21) International Application Number: PCT/IB2004/003302
- (22) International Filing Date: 11 October 2004 (11.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2003/7895 9 October 2003 (09.10.2003) ZA
- (71) Applicant (for all designated States except US): DE BEERS CONSOLIDATED MINES LIMITED [ZA/ZA]; 36 Stockdale Street, 8301 KIMBERLEY (ZA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): COX, Gregory [US/US]; 11418 NE - 117th Street, Kirkland, WA 98034 (US). ANDREW, Colin [ZA/ZA]; 20 Benguela II, Benguela Road, 2156 RANDPARK RIDGE X74 (ZA).
- (74) Agents: DONALD, Heather, June et al.; Spoor & Fisher, P. O. Box 41312, Craighall, 2146 Morningside (ZA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: ENHANCED VIDEO BASED SURVEILLANCE SYSTEM



**WO 2005/036491 A3**

(57) Abstract: The invention provides an enhanced video based surveillance system for use in the surveillance of a zone. The system firstly comprises the step of generating and storing an initial background image (14) of the zone wherein such image is composed of constant background features. Secondly the stored background image is used to partition incoming video images of the zone into segments visually representative of foreground features (16) and background features respectively. Finally foreground features are digitally enhanced (18) relative to the background features in the images, thereby to attract visual attention to such foreground features. The invention further extends to a video motion detection system incorporating the use of stereo calibrated digital cameras.



(88) Date of publication of the international search report:  
16 June 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*